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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
| 10/522,719 | 01/28/2005 | Karl Haberle | 264520US0PCT | 7449 |
| 22850 7590 01/15/2008 OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C. 1940 DUKE STREET ALEXANDRIA, VA 22314 | | | EXAMINER SERGENT, RABON A | |
| | | | ART UNIT 1796 | PAPER NUMBER |
| | | | NOTIFICATION DATE 01/15/2008 | DELIVERY MODE ELECTRONIC |

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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| | | | |
|------------------------------|------------------------|---------------------|--|
| Office Action Summary | Application No. | Applicant(s) | |
| | 10/522,719 | HABERLE ET AL. | |
| | Examiner | Art Unit | |
| | Rabon Sergeant | 1796 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2 and 4-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1, 2, 4, 5, and 8-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Haeberle et al. ('367).

Patentees disclose dispersible polyisocyanate compositions, suitable for producing aqueous dispersions, coatings, and adhesives, wherein the dispersible polyisocyanates are produced by blending one or more polyisocyanates having a mean functionality of from 2.5 to 3.5 with an emulsifier produced by reacting a diisocyanate with a monohydric polyalkylene ether

alcohol having 8 or more ethylene oxide units. Patentees further disclose that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are “particularly preferred”. Biuret containing polyisocyanates and mixtures of the disclosed polyisocyanates are also disclosed as being suitable. See abstract; column 1, lines 7-28; column 2, lines 4+; column 3, lines 34+; column 4, lines 9+; column 5; and column 6, lines 1-6; especially column 2, line 66 through column 3, line 2. The position is taken that the disclosure that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are “particularly preferred” fully encompasses applicants’ mixtures of components (A) and (B) and is adequate to anticipate the claims. Furthermore, given applicants’ breadth of ranges within claim 2, the position is taken that one would have immediately envisioned component amounts of the blend, such as 50:50 mixtures, that meet the claimed ratios.

3. Applicants have argued that Haeberle et al. fail to teach the instantly claimed mixture of instant components (A) and (B), because Haeberle et al. teach polyisocyanates that are single polyisocyanates that are made up of HDI and IPDI radicals. In response, applicants’ argument is without merit; Haeberle et al. clearly teach the instantly claimed mixtures. Firstly, the disclosure at column 2, line 62 through column 3, line 33 is replete with references to mixtures of isocyanurates; note the occurrences of “and/or” and “mixtures thereof” (column 3, line 26). Furthermore, while a disclosure that satisfies applicants’ position is set forth within EP-A 47452 (corresponding to US 4,419,513), additionally cited references US 4,288,586 and US 4,324,879 refer individually to isocyanurates of IPDI and HDI, respectively. In summation, it is abundantly clear that the argued passage clearly discloses mixtures of isocyanurates of HDI and IPDI that

satisfy the instant claims. Furthermore, it is argued that even applicants' argued interpretation of Haeberle et al. is sufficient to satisfy the claims, since applicants' argued single polyisocyanate is technically an isocyanurate of HDI and an isocyanurate of IPDI. In other words, the argued single polyisocyanate satisfies both components (A) and (B).

4. Claims 1, 2, 4-6, and 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Haeberle et al. ('367) in view of Morikawa et al. ('300).

As aforementioned, Haeberle et al. disclose dispersible polyisocyanate compositions, suitable for producing aqueous dispersions, coatings, and adhesives, wherein the dispersible polyisocyanates are produced by blending one or more polyisocyanates having a mean functionality of from 2.5 to 3.5 with an emulsifier produced by reacting a diisocyanate with a monohydric polyalkylene ether alcohol having 8 or more ethylene oxide units. Patentees further disclose that isocyanatoisocyanurates based on hexamethylene diisocyanate and/or isophorone diisocyanate are "particularly preferred". Biuret containing polyisocyanates and mixtures of the disclosed polyisocyanates are also disclosed as being suitable.

5. Even if it is determined that the argued disclosure within Haeberle et al. is insufficient to anticipate applicants' mixture of components (A) and (B), the position is taken that the production of dispersible polyisocyanate, wherein the polyisocyanate constitutes a blend of isocyanurate of hexamethylene diisocyanate and isocyanurate of isophorone diisocyanate, was known at the time of invention. This position is supported by Morikawa et al. See abstract; column 2, lines 15-47; column 3, lines 49-59; and column 4, lines 17-26. It is further noted that amounts of the respective isocyanurates are disclosed that significantly overlap those of claim 2

and the isocyanates are rendered dispersible by reacting them with a reactant fully analogous to that of Haeberle et al. and applicants. Morikawa et al. further disclose that their mixture is non-yellowing, is not deteriorated by weather, has high hardness, and is quick drying. Accordingly, the position is ultimately taken that one of ordinary skill would have been motivated to utilize blends isocyanurate of hexamethylene diisocyanate and isocyanurate of isophorone diisocyanate as the high functionality polyisocyanate of the primary reference, so as to arrive at the instant invention. Furthermore, with respect to claim 6, in view of the secondary teachings, it would have been obvious to modify applicants' components (A) and (B) by reacting them with the nonionic group containing reactant.

6. Applicants' argument with respect to Morikawa et al. concerning the modification of the HDI component by reacting it with a diol is immaterial to the instant claims. Morikawa et al. clearly provide for the use of isocyanurates of HDI at column 3, lines 49-59, and the urethanation of such a compound does not alter the fact that it still contains an isocyanurate structure derived from HDI and is still fairly considered to be an isocyanurate of HDI. Applicants' claims in no way preclude such an interpretation. Furthermore, contrary to applicants' assertions, instant claim 1 is not limited to a compound containing only one isocyanate-reactive group; the claim merely requires one isocyanate reactive group and does not preclude the presence of additional isocyanate reactive groups. Accordingly, applicants' argument is not commensurate in scope with their claims. Additionally, it is noted that Morikawa et al. allow for the use of monofunctional isocyanate reactive compounds; therefore, applicants' arguments concerning

monofunctionality are further unclear as to how they distinguish the instant claims from this teaching of the reference.

7. Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Haeberle et al. ('367), alone, or Haeberle et al. ('367) in view of Morikawa et al. ('300) as applied to claims 1-6 and 8-15 above, and further in view of Weyland et al. ('421).

As aforementioned, the teachings of Haeberle et al., alone, or Haeberle et al. in view of Morikawa et al. render the subject matter of claims 1-6 and 8-15 at least *prima facie* obvious; however, the references are silent with respect to applicants' claimed solvents of claim 7. Still, the use of the claimed solvents with water emulsifiable polyisocyanates was known at the time of invention. The position is supported by the teachings of Weyland et al. See abstract and columns 2-4, especially column 3, line 47 through column 4, line 11. Since both Haeberle et al. and Morikawa et al. disclose that solvents may be used, the position is taken that it would have been obvious to utilize the solvents of Weyland et al. as the solvents of these references. This position is bolstered by the fact that it has been held that it obvious to utilize a known compound for its art recognized purpose. *In re Linder*, 173 USPQ 356. *In re Dial et al.*, 140 USPQ 244.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

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will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (571) 272-1079.

R. Sergent
December 6, 2007


RABON SERGENT
PRIMARY EXAMINER